

REPLACEMENT SHEET

04 OKT. 2000

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An insole with fabric

This application is a 371 of PCT/DK99/00558 filed 10/15/1999

The present invention relates to an insole for footwear as described in the preamble of claim 1

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The soles are intended for the relief of the foot, in particular the sole of the foot, by pressure equalisation, as pain in the foot and the sole of the foot in most cases is caused by concentration of pressure. Known soles use liquid contained in one or more cavities. The pressure of the contained liquid is approximately constant, and the soles will then allocate the pressure from the foot over a larger area, whereby pain in the foot or the sole of the foot is reduced. However, it is known that many kinds of material during constant load even below the yield point show permanent cold flow or creep.

10 The soles also have the disadvantage, that they cold flow or creep due to the continuing load, to which the soles are exposed. Thereby, the inner volume of the cavities increases so that the pressure-equalising effect is reduced and, along with that, the pain relieving effect. Furthermore, the temperature in footwear is between 20°C and 40°C, in which temperature range, the used plastic foils show a relatively large coefficient of expansion for heat and a relatively large change of elasticity. As a result, the relief decreases as the sole gets warmer.

15 DE 40 01 542 describes such a sole, where the cavities are filled with a gas. By using a gas, a higher degree of shock absorption and/or continuing pressure equalisation is obtained, but the gas is more volatile than a liquid. Therefore, it is important that those foils which are used in such a sole have a sufficient low permeability for the used gas. To decrease the permeability and at the same time to increase the strength with regard to creep, the possibility of incorporating a film of, for example, polyethylene or polyurethane in the foils forming the cavities is described. This increases partly the impermeability of the foils and partly the strength with regard to creep. The strength with